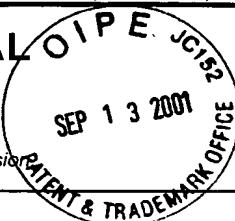


FEE TRANSMITTAL for FY 2001

Patent fees are subject to annual revision.



Complete if Known

Application Number	08/752,032
Filing Date	November 16, 1996
First Named Inventor	Frederick M. Boyce
Examiner Name	Brunovskis, P.
Group Art Unit	1632
Attorney Docket No.	0609.4970003/EEF

TOTAL AMOUNT OF PAYMENT (\$ 180.00)

METHOD OF PAYMENT (check one)

1. ☐ The Commissioner is hereby authorized to charge indicated fees and credit any overpayment to:

Deposit Account Number: 19-0036
Deposit Account Name: Sterne, Kessler, Goldstein & Fox P.L.L.C.

- ☐ Charge Any Additional Fee Required Under 37 CFR §§ 1.16 and 1.17

- ☐ Applicant claims small entity status See 37 CFR 1.27

2. ☒ Payment Enclosed:

☒ Check ☐ Credit card ☐ Money Order ☒ Other*

*Charge any deficiencies or credit any overpayments in the fees or fee calculations of Parts 1, 2 and 3 below to Deposit Account No. 19-0036.

FEE CALCULATION

1. BASIC FILING FEE

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
101	710	201	355	Utility filing fee	
106	320	206	160	Design filing fee	
107	490	207	245	Plant filing fee	
108	710	208	355	Reissue filing fee	
114	150	214	75	Provisional filing fee	
SUBTOTAL (1) (\$)					0.00

2. EXTRA CLAIM FEES

Large Fee Code	Entity Fee (\$)	Small Fee Code	Entity Fee (\$)	Fee Description	Fee Paid
Total Claims ____ - 20** = ____ X ____ = ____					
Indep. Claims ____ - 3** = ____ X ____ = ____					
Multiple Dependent ____ = ____					
103	18	203	9	Claims in excess of 20	
102	80	202	40	Independent claims in excess of 3	
104	270	204	135	Multiple dependent claim	
108	80	209	40	**Reissue independent claims over original patent	
110	18	210	9	**Reissue claims in excess of 20 and over original patent	
SUBTOTAL (2) (\$)					0.00

** or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

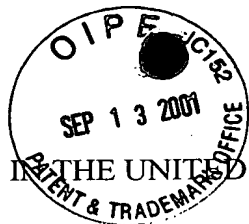
Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee paid
105	130	205	65	Surcharge - late filing fee or oath	
127	50	227	25	Surcharge - late provisional filing fee or cover sheet	
139	130	139	130	Non-English specification	
147	2,520	147	2,520	For filing a request for <i>ex parte</i> reexamination	
112	920*	112	920*	Requesting publication of SIR prior to Examiner action	
113	1,840*	113	1,840*	Requesting publication of SIR after Examiner action	
115	110	215	55	Extension for reply within first month	
116	390	216	195	Extension for reply within second month	
117	890	217	445	Extension for reply within third month	
118	1,390	218	695	Extension for reply within fourth month	
128	1,890	228	945	Extension for reply within fifth month	
119	310	219	155	Notice of Appeal	
120	310	220	155	Filing a brief in support of an appeal	
121	270	221	135	Request for oral hearing	
138	1,510	138	1,510	Petition to institute a public use proceeding	
140	110	240	55	Petition to revive - unavoidable	
141	1,240	241	620	Petition to revive - unintentional	
142	1,240	242	620	Utility issue fee (or reissue)	
143	440	243	220	Design issue fee	
144	600	244	300	Plant issue fee	
122	130	122	130	Petitions to the Commissioner	
123	130	123	130	Petitions related to provisional applications	
126	180	126	180	Submission of Information Disclosure Stmt	180.00
581	40	481	40	Recording each patent assignment per property (times number of properties)	
146	710	246	355	Filing a submission after final rejection (37 CFR 1.129(a))	
149	710	249	355	For each additional invention to be examined (37 CFR 1.129(b))	
179	710	279	355	Request for Continued Examination (RCE)	
169	900	169	900	Request for expedited examination of a design application	
Other fee (specify):					
Other fee (specify):					
*Reduced by Basic Filing Fee Paid					
SUBTOTAL (3) (\$)					180.00

SUBMITTED BY

Complete (if applicable)

Name (Print/Type)	Eldora Ellison Floyd	Registration No. (Attorney/Agent)	39,967	Telephone	202-371-2600
Signature				Date	9/13/01

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.



THE UNITED STATES PATENT AND TRADEMARK OFFICE

SEP 17 2001

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In re application of:

Boyce, Frederick M.

Appl. No. 08/752,032

Filed: November 19, 1996

For: **Use of a Baculovirus to Express
an Exogenous Gene in a
Mammalian Cell**

Art Unit: 1632

Examiner: P. Brunovskis

Atty. Docket: 0609.4970003/JAG/EEF

422
9-17-01
P2

Second Supplemental Information Disclosure Statement

Commissioner for Patents
Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98. A copy of each document is also provided.

Document DB, patent WO 95/26409 is in the French Language. An English language abstract of document DB is attached as document MO.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered. This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist.

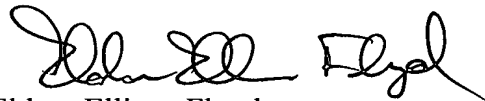
It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and to indicate in the official file wrapper of this patent application that the documents have been considered.

This Second Supplemental Information Disclosure Statement is being filed more than three months after the U.S. filing date and after the mailing date of the first Office Action on the merits, but before the mailing date of a Final rejection or Notice of Allowance. Attached is our Check No. 32531 in the amount of \$ 180.00 in payment of the fee under C.F.R. § 1.17(p).

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this pleading is enclosed.

Respectfully submitted,

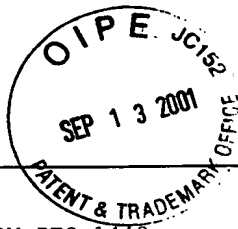
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Eldora Ellison Floyd
Attorney for Applicant
Registration No. 39,967

Date: September 13, 2001

1100 New York Avenue, N.W.
Suite 600
Washington, D.C. 20005-3934
(202) 371-2600



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Page 1 of 8

FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

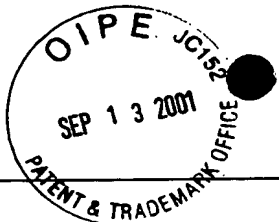
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	CA	5,106,741	04/21/1992	Marotti et al.	435	226	06/12/1991
	DA	5,252,479	10/12/1993	Srivastava	435	235.1	11/08/1991
	EA	5,476,781	12/19/1995	Moyer et al.	435	240.2	12/07/1992
	FA	5,656,465	08/12/1997	Panicali et al.	435	172.3	05/04/1994

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	CB	WO 92/14829 A1	09/03/1992	WIPO			Yes X No
	DB	WO 95/26409 A1	10/05/1995	WIPO			Abstract Yes No
	EB	WO 96/09074 A1	03/28/1996	WIPO			Yes X No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	FO		Barsoum, J., et al., "Efficient Transduction of Mammalian Cells by a Recombinant Baculovirus Having the Vesicular Stomatitis Virus G Glycoprotein," Hum. Gene Ther. 8:2011-2018, Mary Ann Liebert, Inc. (1997).

EXAMINER	DATE CONSIDERED
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



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SEP 17 2001
Page 2 of 8

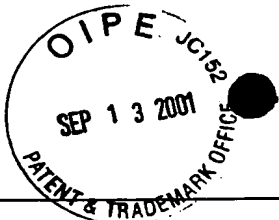
FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
							Yes No
							Yes No
							Yes No
							Yes No
							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	GM		Boublik, Y., et al., "Eukaryotic Virus Display: Engineering the Major Surface Glycoprotein of the <i>Autographa californica</i> Nuclear Polyhedrosis Virus (AcNPV) for the Presentation of Foreign Proteins on the Virus Surface," <i>Bio/Technol.</i> 13:1079-1084, Nature Publishing Co. (1995).
	GN		Brusca, J., et al., "Autographa californica Nuclear Polyhedrosis Virus Efficiently Enters but Does Not Replicate in Poikilothermic Vertebrate Cells," <i>Intervirology</i> . 26:207-222, S. Karger Scientific and Medical Publishers (1986).
	GO		Dimmock, N.J. and Primrose, S.B., "Insect viruses," <i>In: Introduction to Modern Virology</i> , Third Edition, Blackwell Scientific Publications, p.304-305 (1987).

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.	



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Page 3 of 8

FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

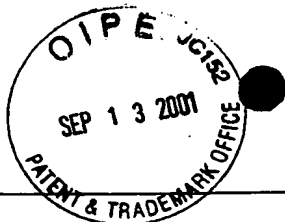
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							Yes No
							Yes No
							Yes No
							Yes No
							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	HM		Glocker, B., et al., "In Vitro Transactivation of Baculovirus Early Genes by Nuclear Extracts from <i>Autographa californica</i> Nuclear Polyhedrosis Virus-Infected <i>Spodoptera frugiperda</i> Cells," <i>J. Virol.</i> 66:3476-3484, American Society for Microbiology (1992).
	HN		Hoopes, R.R.Jr., and Rohrmann, G.F., "In vitro transcription of baculovirus immediate early genes: Accurate mRNA initiation by nuclear extracts from both insect and human cells," <i>Proc. Natl. Acad. Sci. USA</i> 88:4513-4517, National Academy of Sciences (1991).
	HO		Huber, B.E., et al., "Retroviral-mediated gene therapy for the treatment of hepatocellular carcinoma: An innovative approach for cancer therapy," <i>Proc. Natl. Acad. Sci. USA</i> 88:8039-8043, National Academy of Sciences (1991).

EXAMINER	DATE CONSIDERED
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SEP 17 2001
Page 4 of 8

FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
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							Yes No
							Yes No
							Yes No
							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	IM		Hüser, A., et al., "Incorporation of decay-accelerating factor into the baculovirus envelope generates complement-resistant gene transfer vectors," <i>Nat. Biotechnol.</i> 19:451-455, Nature Publishing Group (May 2001).
	IN		Li, Y., et al., "Transient, Nonlethal Expression of Genes in Vertebrate Cells by Recombinant Entomopoxviruses," <i>J. Virol.</i> 71:9557-9562, American Society for Microbiology (1997).
	IO		Marshall, E., "Gene Therapy's Growing Pains," <i>Science</i> 269:1050-1055, American Association for the Advancement of Science (1995).

EXAMINER	DATE CONSIDERED
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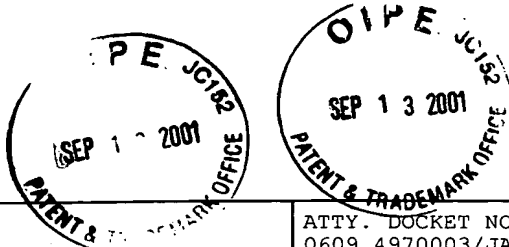
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Page 5 of 8



FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	ATTY. DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

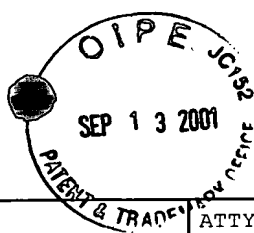
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							Yes No
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							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	JM		Miller, N. and Vile, R., "Targeted vectors for gene therapy," <i>FASEB J.</i> 9:190-199, Federation of American Societies for Experimental Biology (1995).
	JN		Mulligan, R.C., "The Basic Science of Gene Therapy," <i>Science</i> 260:926-932, American Association for the Advancement of Science (1993).
	JO		Patel, G., et al., "A new method for the isolation of recombinant baculovirus," <i>Nucl. Acids. Res.</i> 20:97-104, IRL Press (1992).

EXAMINER	DATE CONSIDERED
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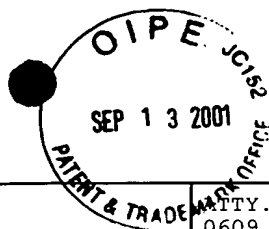
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							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	KM		Rana, B., et al., "Cell-Extracellular Matrix Interactions Can Regulate the Switch between Growth and Differentiation in Rat Hepatocytes: Reciprocal Expression of C/EBP α and Immediate-Early Growth Response Transcription Factors," <i>Mol. Cell. Biol.</i> 14:5858-5869, American Society for Microbiology (1994).
	KN		Sarkis, C., et al., "Efficient transduction of neural cells <i>in vitro</i> and <i>in vivo</i> by a baculovirus-derived vector," <i>Proc. Natl. Acad. Sci. USA</i> 97:14638-14643, National Academy of Sciences (December 2000).
	KO		Shoji, I., et al., "Efficient gene transfer into various mammalian cells, including non-hepatic cells, by baculovirus vectors," <i>J. Gen. Virol.</i> 78:2657-2664, Society for General Microbiology. (October 1997).

EXAMINER	DATE CONSIDERED
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Page 7 of 8
SEP 17 2001
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FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	INVENTOR DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

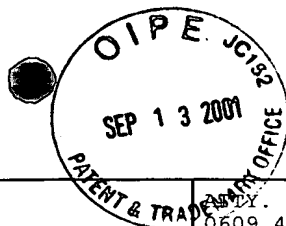
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							Yes No
							Yes No
							Yes No
							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	LM		Song, S.U. and Boyce, F.M., "Combination treatment for osteosarcoma with baculoviral vector mediated gene therapy (p53) and chemotherapy (adriamycin)," <i>Exp. Mol. Med.</i> 33:46-53, Korean Society of Medical Biochemistry and Molecular Biology (March 2001).
	LN		Tjia, S.T., et al., "Autographa Californica Nuclear Polyhedrosis Virus (AcNPV) DNA Does Not Persist in Mass Cultures of Mammalian Cells," <i>Virol.</i> 125:107-117, Academic Press, Inc. (February 1983).
	LO		Vile, R. and Russell, S.J., "Gene transfer technologies for the gene therapy of cancer," <i>Gene Ther.</i> 1:88-98, Macmillan Press, Ltd. (March 1994).

EXAMINER	DATE CONSIDERED
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FORM PTO-1449 <u>SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT</u>	EXAM. DOCKET NO. 0609.4970003/JAG/EEF	APPLICATION NO. 08/752,032
	APPLICANT Boyce, Frederick M.	
	FILING DATE November 19, 1996	GROUP 1632

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB- CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION
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							Yes No
							Yes No
							Yes No
							Yes No

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)			
	MM		Yap, C-C., et al., "A Hybrid Baculovirus-T7 RNA Polymerase System for Recovery of an Infectious Virus from cDNA," Virol. 231:192-200, Academic Press, Inc. (May 1997).
	MN		Clontech Catalog 96/97 (Palo Alto, CA); p.118.
J	MO		Dialog File 351, Accession No. 10457047, Derwent WPI English language abstract for WO 95/26409 (Document DB).

EXAMINER	DATE CONSIDERED
----------	-----------------

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